

And but from nature's fountains scorn'd to draw :
But when to examine every part he came,
Nature and Homer were, he found, the same.
Convinced, amazed, he checks the bold design,
And rules as strict his labour'd work confine,
As if the Stagyrte o'erlook'd each line.
Learn hence for ancient rules a just esteem,—
To copy nature is to copy them."

GREENWICH HOSPITAL—IRON BEAMS. ROYAL INSTITUTE OF ARCHITECTS.

At a meeting held on Monday, the 22nd ult., Mr. Bellamy in the chair, a number of donations were announced, including Mr. Warrington's new volume on stained glass, from the author, a handsome present, and a number of the original drawings for Greenwich Hospital, with Hawkmoor's signature upon them. The latter were presented by Mr. Francis Dollman, and were justly considered by the members a valuable addition to the folio. One of the drawings is very interesting, as shewing a plan for the completion of the centre.

Mr. Bailey, honorary secretary, said, that knowing these drawings were to be presented, he had looked at Evelyn's "Diary," amongst other books on the subject of Greenwich Hospital, where he found some memoranda, which seemed to him interesting. He then read the following extracts from that work:—

May 5, 1695. I came to Deptford from Wotton in order to attend the first meeting of the commissioners for endowing a hospital for seamen at Greenwich. It was at the Guildhall, London. Present.—The Archbishop of Canterbury, Lord Keeper, Lord Privy Seal, Lord Godolphin, Duke of Shrewsbury, Duke of Leeds, Earls of Dorset and Monmouth, Commissioner of the Admiralty and Navy, Sir Robert Clayton, Sir Christopher Wren, and several more.

May 17. Second meeting, and a committee appointed to go to Greenwich to survey the place, I being one of them.

May 21. We went to survey Greenwich, Sir Robert Clayton, Sir C. Wren, Mr. Travers, the King's surveyor, Capt. Sanders, and myself.

24. We made a report of the state of Greenwich House, and how the standing part might be made serviceable at present for 6,000l., and what ground would be requisite for the whole design. My Lord Keeper ordered me to prepare a book for subscriptions, and a preamble to it.

31. Met again. Mr. Vanbrugh was made secretary to the commission by my nomination of him to the Lords, which was all done that day.

June 7. The commissioners met at Guildhall, when there were scruples and contests of the Lord Mayor, who would not meet, not being named as one of the quorum, so that a new commission was required, though the Lord Keeper and the rest thought it too nice a punctilio.

14. Met at Guildhall, but could do nothing for want of a quorum.

July 5. Met at Guildhall; account of subscriptions about 7,000l. or 8,000l.

June 30, 1696. I went with a select committee of the commissioners for Greenwich Hospital, and with Sir C. Wren, where with him I laid the first stone of the intended foundation, precisely at 5 o'clock in the evening, after we had dined together.—Mr. Flamstead, the King's astronomical professor, observing the punctual time by instrument.

July 4. Note. That my Lord Godolphin was the first of the subscribers, who paid any money to this noble fabric.

The subscription list given by Evelyn amounts to 9,046l. 13s. 4d.

Amongst the subscribers are, the King, 2,000l.; Archbishop of Canterbury, 500l.; Lord Keeper Sommers, 500l.; Lord Godolphin,

200l.; Sir Stephen Fox, the Paymaster of the Forces, 200l.; Lord Chief Baron Wood, 66l. 13s. 4d.

Nov. 4, 1696. Expense of the work already done was 5,000l. and upwards, towards which the treasurer had not received above 800l., "so that they must be obliged to stop the work unless there can be a supply of money both from the several noblemen and gentlemen."

It was announced that a folio work, in twenty-one volumes illustrating buildings, paintings, maps, &c., had been purchased by the honorary secretary for the Institute, at the sale of the Stowe library. From the transient glance we had at one of the volumes, this seems to be a valuable acquisition. We shall make acquaintance with it,—for the advantage of our readers.

Mr. Olintus Donaldson, in the absence of his father, then read "A Description of the Malleable Iron Beam-bridge, constructed in 1839, over the Polloc and Govan Railway, on the Carmunnock-road, near Glasgow, by Mr. Andrew Thomson, engineer."

The chairman, with reference to girders constructed of boiler plate, said a difficulty presented itself to his mind in the general use of rivets rendered necessary by the shortness of the lengths of iron, inasmuch as they were liable to be loosened, and when so loosened formed the germ of destruction. Information on the subject of iron girders was much to be desired, and would, he hoped, be contributed by members.—Mr. Fowler wanted to know how such girders were to be repaired, when they became dilapidated?

Mr. Fowler observed that it was worth mention that the official referees, in reporting on buildings wherein cast-iron girders were used, always thought it necessary to warn parties against their uncertainty.—Mr. Jennings said that, on examining an iron aqueduct which had failed, he found the defect was in the masonry and brickwork rather than in the ironwork, and that this had probably been caused by the contraction and expansion of the metal.

Mr. Papworth said it was a curious fact that in Southwark-bridge, which was one of our most important iron bridges, no preparation had been made at first to admit of the expansion and contraction of the ironwork, and that it became necessary, in consequence, to cut through the granite at the abutments afterwards, at a greatly increased cost. He understood that the iron of this bridge flaked off in pieces of considerable size.

Mr. Godwin thought it scarcely necessary to mention that, for large spans, cast-iron girders were out of the question; and that even as regarded small spans, the fact that firemen were more fearful in entering a building when on fire, where the walls were carried on cast-iron, than they were in a building where the girders were of wood, showed that consideration was necessary in their use. He described Mr. Porter's corrugated iron beams (mentioned in our last number), thought them deserving of investigation by those who needed iron beams, and re-urged the suggestion made by Mr. Thomas Cubitt, in the report on the mill at Oldham, that Government should offer premiums for machinery for producing large wrought-iron girders.

Mr. Barry, jun., described an invention recently patented, and on which he had seen experiments, wherein the whole floor formed a single beam, so to speak; there was boiler plate, top and bottom, connected by a web of the same material, if we understood rightly, and filled in solid with concrete. The concrete, though its weight was objectionable, had the advantage of making the floor fire-proof.*

Mr. G. Jennings, by permission of the meeting, afterwards explained the construction of his new water-closet.

NEW COAL FIELD.—We are informed it is intended to open coal fields in the neighbourhood of Bristol.

* The recent destructive fires should aid in leading to the adoption of fire-proof constructions. 26,000l. is spoken of as the amount of the loss by the fire in New-square, Lincoln's Inn, and numerous deeds, court rolls, &c., were burnt which cannot be replaced. The fire at Irongate wharf destroyed a large amount of property. The buildings burnt down were 60 feet by 60 feet, and contained machinery of great cost.

DINNER OF THE INSTITUTION OF BUILDERS' FOREMEN.

THE anniversary dinner of this institution took place on Wednesday, 31st ult., at the Bay-Tree Tavern, St. Swinithin's-lane, City. Mr. G. Godwin, architect, presided, and Mr. Crosse, in the absence of Mr. Thomas Allom, through illness, was in the vice chair. The attendance was very numerous, and included several of the master builders of the metropolis. Letters were read from Professor Cockerell, expressive of his interest in the institution; Mr. Hatcher, architect (with donation of one guinea), Mr. Biers, Mr. Allom, with donation, and other donations were announced from Mr. Bunning, architect, Mr. Piper, Messrs. Locke and Nesham, Mr. T. Patrick, and others. The Patent Dedicating Company sent the very handsome sum of 5l. towards the provident fund.

We are anxious to aid what seems to us a very useful institution, and in giving the gist of the chairman's remarks, when proposing the principal toast of the evening, it may be taken as the expression of our own opinions. He congratulated the meeting on the receipt of the letters already mentioned, as indicating that the objects of the Institution were becoming better understood, and that the feeling of distrust was gradually disappearing. The objects of the Institution were two-fold, benevolent and social,—to provide against illness and misfortune (to purchase or erect an asylum hereafter), and to obtain for foremen and clerks of the works, whose position is necessarily somewhat isolated, the advantage of intercourse with men of their own occupation, and the opportunity of discussing points of construction and gaining information. The Directors repudiated any interference between master and man, any attempt to coerce wages: they desired but to aid themselves, and hurt no one else. An anecdote occurred to him which might not be considered irrelevant. It was said that when the Emperor Augustus was passing through the baths at Rome on one occasion, he saw a veteran who had fought with him rubbing himself, after bathing, against one of the columns. The emperor inquired why he had not a boy to do this? and being told that he was too poor, ordered him the means of paying one. On his next visit he saw at every column an old man rubbing himself; and on making the same inquiry he received the same reply. His rejoinder, however, was not what they expected; for he said,—Well, gentlemen, as there are so many of you, I should advise you to rub one another. Augustus here taught them sound wisdom; he taught them not to depend on the caprice of a patron, but to help one another. And this, the speaker continued, was what the members of the association were trying to do; and when compelled by illness or distress to receive aid, they might regard it as simply a return for money invested by themselves when the sun shone. The working men of England, by their conduct in the late crisis, when the working men of other countries had been levelling others instead of trying to raise themselves, had entitled themselves to the respect of the upper classes; the men had wisely seen that the interests of the employer and the employed were the same, and that injuring their masters was not the way to benefit themselves. That the good feeling which now prevailed might increase; that knowledge might spread; and that every man might find employment, was his earnest wish. He thought the masters would do well to aid this institution more than they had done; and then the general public, when they saw this, would give their aid too. In the name of the committee he asked the public for this assistance; and he invited those present to drink with hearty expression of good will,—

"Success to the President Institution of Builders' Foremen."

* Mr. Allom said,—"That while all connected with the business of building must acknowledge the extreme value of the class for whose benefit this meeting takes place, it will be of the utmost importance to the future success of the institution, that it should endeavour in every possible way, to exercise a moral influence over all its members; and that master builders, instead of dreadng combination against their interests, may feel that in each member of the institution, they may depend on a trustworthy, efficient, and honourable assistant. That, from the intimate association existing between each individual foreman, and the best interests of the builder, the architect, and the employer, such qualities cannot be over-rated, and will require that the institution should be only more fully known to ensure its unequivocal and complete success."

* The following is from Walpole's "Anecdotes of Painting."—NICHOLAS HAWKMOOR (born 1695), at 18 became the scholar of Wren, under whom during his lifetime, and on his own account after his master's death, he was concerned in erecting many public edifices. He assisted in conducting the works at St. Paul's to their conclusion. He was deputy surveyor at the building of Chelsea College, and clerk of the works at Greenwich Hospital. He designed several of the new churches in the reign of Queen Anne, viz.—St. Mary Woolnoth, in Lombard-street; Christ Church, Spitalfields; St. George, Middlesex; St. Anne, Leamington; St. George, Hounslow. He also built part of Limehouse; St. George, Hounslow. He was also part of All Souls' College, Oxford; a mansion at Eton; Newton, Northamptonshire; and assisted Vanbrugh at Blenheim and Castle Howard. He died March 25th, 1736, aged 70.